



<http://dx.doi.org/10.11646/zootaxa.3821.1.11>

<http://zoobank.org/urn:lsid:zoobank.org:pub:50C1CE30-6F91-4B08-B93A-A749F6579807>

Description of *Alloretochus sigillatus* new species with comments and new distributional records for *Alloretochus peruanicus* (Ephemeroptera, Caenidae, Brachycercinae)

C. MOLINERI

Instituto de Biodiversidad Neotropical - CONICET (National Council of Scientific Research), National University of Tucumán, Horco Molle (CP4107), Argentina. E-mail: carlosmolineri@gmail.com

Abstract

Alloretochus sigillatus **sp. nov.** is described from adults of both sexes and eggs from Bolivia and Ecuador. Diagnostic characters of this species include: large body size, ratio pedicel/scape 1.75, presence of posteromedian projection on metanotum, characteristic blackish marks on abdominal terga, presence of vestiges of posterolateral projections on abdomen segments IV–VI, male subgenital plate broadly emarginated posteriorly, ratios forceps length/subbasal width 8.9, female sternum IX produced distally reaching apex of segment X, tapering distally with rounded apex, egg with 4 costae in lateral half. Additional characters for all stages and SEM photographs of eggs are provided for *Alloretochus peruanicus*, with new records of its presence in Argentina, Bolivia, Peru and Colombia.

Key words: *Alloretochus*, *Latineosus*, *Cercobrachys*, *A. peruanicus*, *A. sigillatus*

Introduction

Brachycercinae (Ephemeroptera: Caenidae) is a very distinct group of mayflies with specialized psammophilous nymphs and very short-lived adults that are rare in collections (Sun & McCafferty 2008). The subfamily is known around the world with Holarctic, Oriental, and Neotropical representatives, but in this last region the knowledge is limited to very few specimens from isolated collections, recently classified into two genera (Sun & McCafferty 2008): *Latineosus* Sun & McCafferty, 2008 and *Alloretochus* Sun & McCafferty, 2008. *Latineosus* is known from two Neotropical species (*L. cayo* Sun & McCafferty from Belize and *L. colombianus* (Soldán) from Colombia) and one SW Nearctic species (*L. cibola* Sun & McCafferty). *Alloretochus* is only known from its type species, *A. peruanicus* (Soldán) recorded from Peru (Soldán 1986) and Bolivia (Molineri & Goitía 2006). The two genera differ in details in larval mouthparts, antennae and abdominal projections (Sun & McCafferty 2008), while the adult stage of *Latineosus* is still unknown. Nevertheless, Sun & McCafferty (2008) diagnosed the adult stage of *Alloretochus* mainly by the concave posterior margin of the male styliger plate. Adults showing this unique feature from NW Argentina, Bolivia and Colombia were studied and proved to represent two species: the previously known *A. peruanicus* and a new species, which is described herein as *Alloretochus sigillatus* **sp. nov.** from adults of both sexes and eggs from Bolivia. Additional characters for adults, eggs and larvae of *A. peruanicus* which were newly collected in Argentina, Bolivia and Colombia are also reported in the present study.

Material and methods

The male imagoes studied here were identified at the genus level with the characters provided by Sun & McCafferty (2008). Females and males are attributed to the same species because they were collected at the same time and locality and show a similar color pattern and body size. Illustrations were made with the aid of a stereomicroscope (Nikon 20154) coupled with a camera lucida. The reared specimens and immature larvae are preserved in ethanol

References

- Molineri, C. & Goitia, E. (2006) Description of the adult stage of *Cercobrachys peruanicus* (Ephemeroptera: Caenidae). *Revista de la Sociedad Entomológica Argentina*, 65, 63–67.
- Soldán, T. (1986) A revision of the Caenidae with ocellar tubercles in the nymphal stage (Ephemeroptera). *Acta Universitatis Carolinae—Biologica*, 1982–1984, 289–362.
- Sun, L. & McCafferty, W.P. (2008) Cladistics, classification and identification of the brachycercine mayflies (Insecta: Ephemeroptera: Caenidae). *Zootaxa*, 1801, 1–239.